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(54) **METHODS AND SYSTEMS FOR PREDICTION OF A DNA PROFILE MIXTURE RATIO**

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(57) **ABSTRACT**

A system configured to characterize a ratio of contributors to a DNA mixture within a sample, the system including: a sample preparation module configured to generate initial data about the DNA mixture within the sample; a processor comprising a ratio of contributors determination module configured to: (i) receive the generated initial data; (ii) analyze the generated initial data to determine the ratio of contributors to the DNA mixture within the sample; and an output device configured to receive the determined ratio of contributors from the processor, and further configured to output information about the received determined ratio of contributors.

10 Claims, 3 Drawing Sheets